Azul Lihuen Fatalini

Personal Details

Birth 28th of February, 1995 | Tucumán, Argentina

Languages Spanish (native), English (advanced), Portuguese (advanced), German (intermediate)

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Education

Degrees

2020–Present **PhD student**, Universität Münster, Germany, Advisor: Prof. Ralf Schindler. Expected: June 2024.

Doctoral position (75 % position, salary level E13, TV-L funded by Cluster of Excellence Münster + 25 % position given by Ada Lovelace Fellowship).

2019–2020 **PhD student**, National University of Córdoba, Argentina. CONICET Fellowship. Discontinued to be able to study abroad.

2013–2018 Licenciada en Matemática, (Bachelor+Master equivalent, 5 years program), National University of Córdoba, Argentina.

GPA: 9.88/10.

Thesis: Hyperbolic plane geometry. Advisors: Juan Pablo Rossetti (National University of Córdoba) and Peter Doyle (Dartmouth College).

2015–2018 **Profesora de Matemática**, (*Teacher of Mathematics, Bachelor's degre, 4 years program*), National University of Córdoba, Argentina. GPA: 9.57/10.

Complementary Education

2019 and **Summer Program**, course "Combinatorics I"(2019) and 'Topics of Singularity 2017 Theory: Combinatorics, Topology and Algebra" (2017), Instituto de Matemática

Pura e Aplicada (IMPA), Río de Janeiro, Brazil.

Grades: A

Awards and Honors

2018 Honorable Mention in the Competencia Interuniversitaria Matemática Argentina (CIMA), CIMA is a Mathematical Olympiad for undergraduates.

Team with M. Hunicken

- 2017 **Second best GPA**, out of all fourth-year students in the fields of Math, Physics, Computer Science and Astronomy at the National University of Córdoba.
- 2017 Excellence Award Luis Pasteur.

Monetary award given by Obra Social Luis Pasteur to the 20 best GPAs that entered the national contest.

2016, 2015 First place in the CIMA.

Team with L. Ferroni

2013 Honorable mention and "Most original solution" in the CIMA. Team with L. Ferroni

2012 Honorable Mention in the 53rd International Mathematical Olympiad (IMO).

Conferences and Seminars

Conferences

- July 2024 Invited speaker, 120 Years of Choice, Leeds, UK.
 - 2023 Attendee, Perspectives in Set Theory, Warsaw, Poland.
 - 2023 **Speaker**, *PhDs in Logic XIV*, Granada, Spain.
 - 2023 Local organizer, Young Set Theory Workshop, Münster, Germany.
 - 2023 Speaker, Winter school: Section set theory and topology, Štěkeň, Czech Republic.
 - 2022 **Speaker**, Set Theory in the UK, Leeds, UK.
 - 2022 **Attendee**, *CHEESE Workshop (Choiceless Elementary Embeddings of Sets)*, Leeds, UK.
 - 2022 Attendee, European Set Theory Conference 2022, Turin, Italy.
 - 2022 **Speaker**, 5th Münster conference on inner model theory, Münster, Germany.
 - 2022 **Speaker**, Winter school: Section set theory and topology, Hejnice, Czech Republic.
 - 2021 **Attendee**, XVI International Luminy Workshop in Set Theory, CIRM, Marseille, France.
 - 2021 **Attendee (online)**, RIMS Workshop "Recent Developments in Set Theory of the Reals", Kyoto University, Japan.
- 2015–2020 **Attendee**, of the six annual meetings of the Argentinian Mathematical Union that took place in those years, Argentina.

Seminars

- 2023 **Organizer**, of the PhD Seminar of Set Theory, Universität Münster.
- 2022 **Organizer**, of the Seminar of graduate students, Universität Münster.
- 2020 Organizer, of the Seminar of graduate students, National University of Córdoba.
- 2020 **Speaker (online)**, "The Continuum Hypothesis", on the Seminar of graduate students, National University of Chile.
- 2016-2023 **Speaker**, on the topics "Euclides vs Cantor" (2023), "Forcing paradoxical sets" (2021) "Combinatorics: Ramsey theory and random graphs" (2019), "Hyperbolic plane geometry: area of polygons" (2018), "The art of solving math problems" (2016), Seminar of graduate students, National University of Córdoba.

Teaching Experience

- 2017–2019 **Teacher in a Math olympiad workshop**.
 - Workshop at a school, destined to primary and high school students who want to train for mathematical olympiads.
- 2016–2018, **Teaching Assistant**, at National University of Córdoba.
 - 2020 Hired by the Math Department.

Institutional Activities

- 2023 Member, of the Equal Opportunity Committee, Universität Münster.
- 2021-2022 **Mentor**, as part of the MINT mentorship program for women master students, Universität Münster.
- 2017–2019 **Organizer**, of different institutional events of the Math Department, National University of Córdoba.
- 2015-2018 **Representative of undergraduate Math students**, *in the Mathematics Council*, National University of Córdoba.

Others

- 2017 **Collaborator**, with the (partial) translation from English to Spanish of the book "A singular mathematical Promenade" by Étienne Ghys, IMPA, Rio de Janeiro.
- 2013-2017 **Student grant**, thanks to Retama Foundation.

Retama is a private foundation that awards scholarships to outstanding high school students who have to move to another city for university studies.

Argentinian Mathematical Olympiad (OMA)

- 2019 Member of the jury in the national contest.
- 2018, 2019 Member of the jury in several regional contests.
- 2015, 2018, Member of the jury of the national contest "Mateclubes".
 - 2019 Mateclubes is an Argentinian Mathematical Olympiad organized by teams.
- 2011–2019 **Collaborator**, of the Argentinian Mathematical Olympiad Foundation, in regional, national and international contests such as:.
 - Southern Cone Olympiad 2016
 - o Ibero-American Olympiad 2017
 - o Río de La Plata Olympiad 2018 and 2019

List of publications

- \circ A. Fatalini, Partitions of \mathbb{R}^3 into unit circles with no well-ordering of the reals, in preparation.
- A. FATALINI AND R. SCHINDLER, *Transcendence degree of the reals over certain set-theoretical subfields*, in preparation.